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## RAW SEQUENCE LISTING

DATE: 03/13/2002

PATENT APPLICATION: US/10/054,313

TIME: 10:15:22

Input Set : N:\Cr3\RULE60\10054313.raw

Output Set: N:\CRF3\03132002\J054313.raw

1 <110> APPLICANT: Crooke, Stanley T.  
 2 Lima, Walter F.  
 3 Wu, Hongjiang  
 4 <120> TITLE OF INVENTION: Human RNase H Compositions and Uses Thereof  
 5 <130> FILE REFERENCE: ISPH-0333  
 6 <140> CURRENT APPLICATION NUMBER: 10/054,313  
 7 <141> CURRENT FILING DATE: 2001-10-22  
 8 <150> PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/203,716  
 W--> 9 <151> PRIOR FILING DATE: EARLIER FILING DATE: 1998-12-02  
 10 <160> NUMBER OF SEQ ID NOS: 12  
 11 <170> SOFTWARE: PatentIn Ver. 2.0  
 13 <210> SEQ ID NO: 1  
 14 <211> LENGTH: 286  
 15 <212> TYPE: PRT  
 16 <213> ORGANISM: Homo sapiens  
 17 <400> SEQUENCE: 1  
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 19 1 5 10 15  
 20 Pro Cys Arg Arg Gly Ser Arg Gly Phe Gly Met Phe Tyr Ala Val Arg  
 21 20 25 30  
 22 Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala  
 23 35 40 45  
 24 Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu  
 25 50 55 60  
 26 Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser  
 27 65 70 75 80  
 28 Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Lys Pro Gly  
 29 85 90 95  
 30 Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Gln  
 31 100 105 110  
 32 Pro Tyr Ala Lys His Met Lys Pro Ser Val Glu Pro Ala Pro Pro Val  
 33 115 120 125  
 34 Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr  
 35 130 135 140  
 36 Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Lys Pro Arg Ala Gly Ile  
 37 145 150 155 160  
 38 Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu  
 39 165 170 175  
 40 Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys  
 41 180 185 190  
 42 Ala Ile Glu Gln Ala Lys Thr Gln Asn Ile Asn Lys Leu Val Leu Tyr  
 43 195 200 205  
 44 Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly

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45          210          215          220
46      Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn
47      225          230          235          240
48      Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile
49          245          250          255
50      Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu
51          260          265          270
52      Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp
53          275          280          285
55 <210> SEQ ID NO: 2
56 <211> LENGTH: 293
57 <212> TYPE: PRT
58 <213> ORGANISM: Gallus sp.
59 <400> SEQUENCE: 2
60      Met Leu Arg Trp Leu Val Ala Leu Leu Ser His Ser Cys Phe Val Ser
61          1          5          10          15
62      Lys Gly Gly Gly Met Phe Tyr Ala Val Arg Lys Gly Arg Gln Thr Gly
63          20          25          30
64      Val Tyr Arg Thr Trp Ala Glu Cys Gln Gln Gln Val Asn Arg Phe Pro
65          35          40          45
66      Ser Ala Ser Phe Lys Lys Phe Ala Thr Glu Lys Glu Ala Trp Ala Phe
67          50          55          60
68      Val Gly Ala Gly Pro Pro Asp Gly Gln Gln Ser Ala Pro Ala Glu Thr
69          65          70          75          80
70      His Gly Ala Ser Ala Val Ala Gln Glu Asn Ala Ser His Arg Glu Glu
71          85          90          95
72      Pro Glu Thr Asp Val Leu Cys Cys Asn Ala Cys Lys Arg Arg Tyr Glu
73          100          105          110
74      Gln Ser Thr Asn Glu Glu His Thr Val Arg Arg Ala Lys His Asp Glu
75          115          120          125
76      Glu Gln Ser Thr Pro Val Val Ser Glu Ala Lys Phe Ser Tyr Met Gly
77          130          135          140
78      Glu Phe Ala Val Val Tyr Thr Asp Gly Cys Cys Ser Gly Asn Gly Arg
79          145          150          155          160
80      Asn Arg Ala Arg Ala Gly Ile Gly Val Tyr Trp Gly Pro Gly His Pro
81          165          170          175
82      Leu Asn Ile Ser Glu Arg Leu Pro Gly Arg Gln Thr Asn Gln Arg Ala
83          180          185          190
84      Glu Ile His Ala Ala Cys Lys Ala Ile Glu Gln Ala Lys Ser Gln Asn
85          195          200          205
86      Ile Lys Lys Leu Ile Ile Tyr Thr Asp Ser Lys Phe Thr Ile Asn Gly
87          210          215          220
88      Ile Thr Ser Trp Val Glu Asn Trp Lys Thr Asn Gly Trp Arg Thr Ser
89          225          230          235          240
90      Ser Gly Gly Ser Val Ile Asn Lys Glu Asp Phe Gln Lys Leu Asp Ser
91          245          250          255
92      Leu Ser Lys Gly Ile Glu Ile Gln Trp Met His Ile Pro Gly His Ala
93          260          265          270
94      Gly Phe Gln Gly Asn Glu Glu Ala Asp Arg Leu Ala Arg Glu Gly Ala

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95          275          280          285
96      Ser Lys Gln Lys Leu
97          290
99 <210> SEQ ID NO: 3
100 <211> LENGTH: 348
101 <212> TYPE: PRT
102 <213> ORGANISM: Saccharomyces sp.
103 <400> SEQUENCE: 3
104      Met Ala Arg Gln Gly Asn Phe Tyr Ala Val Arg Lys Gly Arg Glu Thr
105          1          5          10          15
106      Gly Ile Tyr Asn Thr Trp Asn Glu Cys Lys Asn Gln Val Asp Gly Tyr
107          20          25          30
108      Gly Gly Ala Ile Tyr Lys Lys Phe Asn Ser Tyr Glu Gln Ala Lys Ser
109          35          40          45
110      Phe Leu Gly Gln Pro Asn Thr Thr Ser Asn Tyr Gly Ser Ser Thr His
111          50          55          60
112      Ala Gly Gly Gln Val Ser Lys Pro His Thr Thr Gln Lys Arg Val His
113          65          70          75          80
114      Arg Arg Asn Arg Pro Leu His Tyr Ser Ser Leu Thr Ser Ser Ser Ala
115          85          90          95
116      Cys Ser Ser Leu Ser Ser Ala Asn Thr Asn Thr Phe Tyr Ser Val Lys
117          100          105          110
118      Ser Asn Val Pro Asn Ile Glu Ser Lys Ile Phe Asn Asn Trp Lys Asp
119          115          120          125
120      Cys Gln Ala Tyr Val Lys His Lys Arg Gly Ile Thr Phe Lys Lys Phe
121          130          135          140
122      Glu Asp Gln Leu Ala Ala Glu Asn Phe Ile Ser Gly Met Ser Ala His
123          145          150          155          160
124      Asp Tyr Lys Leu Met Asn Ile Ser Lys Glu Ser Phe Glu Ser Lys Tyr
125          165          170          175
126      Lys Leu Ser Ser Asn Thr Met Tyr Asn Lys Ser Met Asn Val Tyr Cys
127          180          185          190
128      Asp Gly Ser Ser Phe Gly Asn Gly Thr Ser Ser Ser Arg Ala Gly Tyr
129          195          200          205
130      Gly Ala Tyr Phe Glu Gly Ala Pro Glu Glu Asn Ile Ser Glu Pro Leu
131          210          215          220
132      Leu Ser Gly Ala Gln Thr Asn Asn Arg Ala Glu Ile Glu Ala Val Ser
133          225          230          235          240
134      Glu Ala Leu Lys Lys Ile Trp Glu Lys Leu Thr Asn Glu Lys Glu Lys
135          245          250          255
136      Val Asn Tyr Gln Ile Lys Thr Asp Ser Glu Tyr Val Thr Lys Leu Leu
137          260          265          270
138      Asn Asp Arg Tyr Met Thr Tyr Asp Asn Lys Lys Leu Glu Gly Leu Pro
139          275          280          285
140      Asn Ser Asp Leu Ile Val Pro Leu Val Gln Arg Phe Val Lys Val Lys
141          290          295          300
142      Lys Tyr Tyr Glu Leu Asn Lys Glu Cys Phe Lys Asn Asn Gly Lys Phe
143          305          310          315          320
144      Gln Ile Glu Trp Val Lys Gly His Asp Gly Asp Pro Gly Asn Glu Met

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145                      325                      330                      335
146      Ala Asp Phe Leu Ala Lys Lys Gly Ala Ser Arg Arg
147                      340                      345
149 <210> SEQ ID NO: 4
150 <211> LENGTH: 155
151 <212> TYPE: PRT
152 <213> ORGANISM: Escherichia coli
153 <400> SEQUENCE: 4
154      Met Leu Lys Gln Val Glu Ile Phe Thr Asp Gly Ser Cys Leu Gly Asn
155          1                      5                      10                      15
156      Pro Gly Pro Gly Gly Tyr Gly Ala Ile Leu Arg Tyr Arg Gly Arg Glu
157          20                      25                      30
158      Lys Thr Phe Ser Ala Gly Tyr Thr Arg Thr Thr Asn Asn Arg Met Glu
159          35                      40                      45
160      Leu Met Ala Ala Ile Val Ala Leu Glu Ala Leu Lys Glu His Cys Glu
161          50                      55                      60
162      Val Ile Leu Ser Thr Asp Ser Gln Tyr Val Arg Gln Gly Ile Thr Gln
163          65                      70                      75                      80
164      Trp Ile His Asn Trp Lys Lys Arg Gly Trp Lys Thr Ala Asp Lys Lys
165          85                      90                      95
166      Pro Val Lys Asn Val Asp Leu Trp Gln Arg Leu Asp Ala Ala Leu Gly
167          100                     105                     110
168      Gln His Gln Ile Lys Trp Glu Trp Val Lys Gly His Ala Gly His Pro
169          115                     120                     125
170      Glu Asn Glu Arg Cys Asp Glu Leu Ala Arg Ala Ala Ala Met Asn Pro
171          130                     135                     140
172      Thr Leu Glu Asp Thr Gly Tyr Gln Val Glu Val
173      145                      150                      155
175 <210> SEQ ID NO: 5
176 <211> LENGTH: 216
177 <212> TYPE: PRT
178 <213> ORGANISM: Mus musculus
179 <400> SEQUENCE: 5
180      Gly Ile Cys Gly Leu Gly Met Phe Tyr Ala Val Arg Arg Gly Arg Arg
181          1                      5                      10                      15
182      Pro Gly Val Phe Leu Ser Trp Ser Glu Cys Lys Ala Gln Val Asp Arg
183          20                      25                      30
184      Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu Asp Glu Ala Trp
185          35                      40                      45
186      Ala Phe Val Arg Ser Ser Ser Ser Pro Asp Gly Ser Lys Gly Gln Glu
187          50                      55                      60
188      Ser Ala His Glu Gln Lys Ser Gln Ala Lys Thr Ser Lys Arg Pro Arg
189          65                      70                      75                      80
190      Glu Pro Leu Val Val Val Tyr Thr Asp Gly Cys Cys Ser Ser Asn Gly
191          85                      90                      95
192      Arg Lys Arg Ala Arg Ala Gly Ile Gly Val Tyr Trp Gly Pro Gly His
193          100                     105                     110
194      Pro Leu Asn Val Arg Ile Arg Leu Pro Gly Arg Gln Thr Asn Gln Arg
195          115                     120                     125

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```

196   Ala Glu Ile His Ala Ala Cys Lys Ala Val Met Gln Ala Lys Ala Gln
197       130               135               140
198   Asn Ile Ser Lys Leu Val Leu Tyr Thr Asp Ser Met Phe Thr Ile Asn
199       145               150               155               160
200   Gly Ile Thr Asn Trp Val Gln Gly Trp Lys Lys Asn Gly Trp Arg Thr
201       165               170               175
202   Ser Thr Gly Lys Asp Val Ile Asn Lys Glu Asp Phe Met Glu Leu Asp
203       180               185               190
204   Glu Leu Thr Gln Gly Met Asp Ile Gln Trp Met His Ile Pro Gly His
205       195               200               205
206   Ser Gly Phe Val Gly Asn Glu Glu
207       210               215
209 <210> SEQ ID NO: 6
210 <211> LENGTH: 26
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic
215 <400> SEQUENCE: 6
216   acgctggccg ggagtcgaaa tgcttc
218 <210> SEQ ID NO: 7
219 <211> LENGTH: 28
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic
224 <400> SEQUENCE: 7
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227 <210> SEQ ID NO: 8
228 <211> LENGTH: 29
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic
233 <400> SEQUENCE: 8
234   ggtctttctg acctggaatg agtgcagag
236 <210> SEQ ID NO: 9
237 <211> LENGTH: 29
238 <212> TYPE: DNA
239 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Description of Artificial Sequence:Synthetic
242 <400> SEQUENCE: 9
243   cttgcctggt ttgcacctcc gattcttgt
245 <210> SEQ ID NO: 10
246 <211> LENGTH: 29
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:

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VERIFICATION SUMMARY

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DATE: 03/13/2002

TIME: 10:15:23

Input Set : N:\Crf3\RULE60\10054313.raw

Output Set: N:\CRF3\03132002\J054313.raw

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